Utilization Assignments

5A.1

Lead Electrical Engineer **Backup Lead**
Rob Kuczajda   Susan Hutchison

Payload/System   **Prime Test Engineer**   **Backup Test Engineer**
HRF   Susan Hutchison   Rob Kuczajda

6A

Lead Mechanical Engineer   **Backup Lead**
Jennifer Wahlberg   Randy Gordon

Payload/System	Mechanical Engineer	Backup Mech. Engineer
Express Rack #1	Randy Gordon	Kenny Mathews
Express Rack #2	Kenny Mathews	Randy Gordon
Stowage/Return Cargo	Randy Gordon	Elaine Voll
		Luke Setzer
		Kenny Mathews
Middeck Support	Mike Haddock (DFRC)	Elaine Voll (DFRC)
		Kenny Mathews

Lead Middeck Electrical Engineer
Tracy Gill

Lead Fluids Engineer
Robert Wark

Lead Payload Flight Software Engineer
Sue Sitko

Lead Electrical Engineer   **Backup Lead #1**   **Backup Lead #2**
Juan Calero (7-5840)   Tracy Gill (7-5824)   Susan Hutchison (7-5828)

Payload/System	Prime Test Engineer	Backup Test Engineer
Express Rack #1 (ER1)	Tracy Gill (7-5824)	Susan Hutchison (7-5828)
		Scott Vangen (7-6144)-ICT only
Express Rack #2 (ER2)	Tracy Gill (7-5824)	Juan Calero (7-5840)
ADVASC (ER1)	Michael Haddock (7-5853)	Elaine Voll (7-6083)
CPCG (ER1)	Randy Gordon (7-5853)	Jeff Orr
	Kenny Mathews (7-5851)	
PCG-STES(ER1)	Theresa Schroeder	David Stewart
MAMS (ER1)	Kevin Zari (7-5850)	P Meade
CGBA (ER1)	Jennifer Wahlberg (7-5854)	Dave Bush (7-4787)
SAMS II (ER1 & ER2)	Kevin Zari (7-5850)	M Gardner
PCS (ER2)	Susan Hutchison (7-5828)	Dave Bush (7-4787)
ARIS-ICE (ER2)	Kevin Zari (7-5850)	Dan Clark

7A

Current Manifest:
Ascent
PCG-STES 7
PCG-STES 8
PCG-BAG

Descent
PCG-STES 9
PCG-STES 10

Lead Mechanical Engineer	**Backup Lead**	
Mike Haddock	Kenny Mathews	

Payload/System	**Mechanical Engineer**	**Backup Mech. Engineer**
FCU	Randy Gordon	Kenny Mathews
Middeck Support	Luke Setzer (DFRC)	Randy Gordon (DFRC)
		Elaine Voll

Lead Middeck Electrical Engineer
Susan Hutchison

Lead Fluids Engineer
Robert Wark

Lead Payload Flight Software Engineer
Sue Sitko

Lead Electrical	**Backup Lead**	
Susan Hutchison (7-5828)	David Stewart	

Payload/System	**Prime Test Engineer**	**Backup Test Engineer**
FCU	Rob Kuczajda	Robert Wark
PCG-STES 7	Susan Hutchison	Tamara Willingham
PCG-STES 8	Susan Hutchison	Tamara Willingham

7A.1

Current Manifest:

Lead Mechanical Engineer	**Backup Lead**
Luke Setzer	Elaine Voll (DFRC)

Payload/System	**Mechanical Engineer**	**Backup Mech. Engineer**
Express Rack #4	Randy Gordon	Mike Haddock
Express Rack #5	Elaine Voll	Randy Gordon
FCU	Mike Haddock	Elaine Voll
Middeck Support	Randy Gordon	Kenny Mathews (DFRC)
		Jennifer Wahlberg

Lead Middeck Electrical Engineer
Tracy Gill

Lead Fluids Engineer
Robert Wark

Lead Payload Flight Software Engineer
Sue Sitko

Lead Electrical	**Backup Lead**
Tracy Gill	Kevin Zari

Payload/System	**Prime Test Engineer**	**Backup Test Engineer**
Express Rack #4	Dan Clark	
BSTC, GSM **	Deon Williams	
Express Rack #5 (empty)	Dan Clark	Morgan Simpson
FCU	Rob Kuczajda	Tamara Willingham
BTR (ER1) **	Deon Williams	
APCF (ER1)	Jennifer Wahlberg (7-5854)	
		Pam Meier
DCPCG (ER1)	David Stewart	Jeff Orr

** BSTC, GSM, and BTR - All from one payload provider

STS-107

Current Manifest:
Ascent/Descent
Closed Equilibrated Biological Aquatic System (CEBAS)
Commercial Macromolecular and Protein Crystal Growth Experiment (CMPCG)
Osteoporosis Experiment in Orbit (OSTEO)
Biopack BEI
Biopack Experiment Insert (BEI) contents
Biological Research in Canisters (BRIC)

Lead Mechanical Engineer	**Backup Lead**	
Luke Setzer	Kenny Mathews (DFRC)	

Payload/System	**Mechanical Engineer**	**Backup Mech. Engineer**
Middeck Support	Elaine Voll	Randy Gordon
		Jennifer Wahlberg (DFRC)

Lead Middeck Elec. Eng.	**Backup Lead**
Rob Kuczajda	Dave Crawford

UF-1

Current Manifest:
Ascent
Zeolite Crystal Growth Furnace Unit (ZCG-FU)
Biotechnology Refrigerator (BTR)
Protein Crystal Growth- Single Thermal Enclosure (PCG-STES) – 2 units
Microencapsulation Electrostatic Process System (MEPS) (flies in MPLM)

Additional Ascent Middeck Payloads:
Advanced Astroculture (Growth Chamber (ADVASC-GC)
Advanced Astroculture Stowage 2 (ADVASC-S2A)
CBT-M Animal Enclosure Module Stowage
Hoffman Reflex Experimental Kit 1 (H-Reflex 1)
HRF K-Citrate (HRF-KCIT)
Avian Development Facility (ADF)
Biotechnology Cell Science Stowage (BCSS)
CBT-M Animal Enclosure Module (CBT-M-AEM) – 3 units
Protein Crystal Growth – Single Thermal Enclosure System
Descent MPLM:
Active Rack Isolation System – ISS Characterization Expt (ARIS-ICE)
ARIS-ICE Stowage
Bonner Ball Kits 1&2
Biotechnology Cell Science Stowage (BCSS) 1&4
Dynamically Controlled Protein Crystal Growth (DCPCG-C)
Bonner Ball Unit
ARIS-ICE Locker

Descent Middeck Payloads:
CBT-M Animal Enclosure Module Stowage
Hoffman Reflex Experimental Kit (H-Reflex 1)
HRF K-Citrate (HRF-KCIT)
HRF – Renal Stone
Avian Development Facility (ADF)
Advanced Protein Crystallization Facility (APCF)
Biotechnology Refrigerator (BTR)
CBT-M Animal Enclosure Module (CBT-M-AEM) – 3 units
Dynamically Controlled Protein Crystal Growth (DCPCG-V)

Lead Mechanical Engineer   **Backup Lead**
Jennifer Wahlberg (DFRC)   Luke Setzer (DFRC)

Payload/System	Mechanical Engineer	Backup Mech. Engineer
FCU	Randy Gordon	Kenny Mathews
Cargo (Utilization + R&R)	Kenny Mathews	Randy Gordon
Middeck Support	Mike Haddock	Randy Gordon
		Kenny Mathews

UF-1 (continued)

TIM: Ross Nordeen

Lead Middeck Electrical Engineer
Susan Hutchison

Lead Fluids Engineer
Robert Wark

Lead Payload Flight Software Engineer
Sue Sitko

UF-1 Lead Electrical	Backup Lead	
Susan Hutchison	Dan Clark	

Payload/System	Prime Test Engineer	Backup Test Engineer
FCU	Kevin Zari	Robert Wark
PCG STES-9	Michael Gardner	Lashanda Gantt
PCG STES-10	Michael Gardner	Lashanda Gantt
ZCG-FU	Elaine Voll	Myphi Tran
MEPS1	Tamara Willingham	
ADVASC GC2	Morgan Simpson	Mike Haddock

STS-109

Lead Mechanical Engineer	Backup Lead	
Mike Haddock (DFRC)	Jennifer Wahlberg	

Payload/System	Mechanical Engineer	Backup Mech. Engineer
Middeck Support	Elaine Voll	Randy Gordon (DFRC)
		Kenny Mathews

Lead Middeck Electrical Engineer
Tracy Gill

UF-2

Current Manifest:
Flying in EXPRESS Transportation Rack. Tested in EXPRESS FCU:
Space Dynamically Responding Ultrasonic Matrix (Space-DRUM)

EXPRESS Rack 3 (includes Active Rack Isolation System (ARIS))

Microgravity Science Glovebox (MSG)

Flying in the middeck. Tested in EXPRESS rack 3 or FCU:
Toward Understanding Pore Formation and Mobility (PFM-L)
Commercial Generic Bioprocessing Apparatus (CGBA) –2 units
Dynamically Controlled Protein Crystal Growth – Vapor (DCPCG-V)
Protein Crystal Growth – Single Thermal Enclosure System (PCG-STES) – 2 units)

Additional MPLM Ascent:
Rack Knee Brace
RSP or RSR Items:
HRF – Logistics and Resupply (HRF STO4)
Passive Dosimeter PNTD Supply/Return Kit (LSE-PNTD)
ADVASC – Stowage 3 Ascent (ADVASC-S3A)
Dynamically Controlled Protein Crystal Growth (DCPCG-C)
EXPRESS Rack 3 Strap (ER 3-Strap)
EXPRESS Spares (EXP-Spares)
Glovebox Integrated Microgravity Isolation Technology (G-Limit)
Glovebox Integrated Microgravity Isolation (G-Limit-SA)
Microgravity Science Glovebox Stowage (MSG-STO-A)
PFM Processing Hardware (PFM-H)
Solidifcation Using Baffles in Sealed Ampules (SUBSA)
Advanced Astroculture-Growth Chamber (ADVASC-GC03)
Advanced Astroculture Stowage 2 Ascent (ADVASC-S2A)
EARTHKAM Hardrive
Additional Ascent Middecks:
Zeolite Crystal Growth – Sample Storage (ZCG-SS)
KSCGN2 Freezer(KSC-GN2)
Toward Understanding Pore Formation & Mobility

MPLM Descent:
Rack Knee Brace (3)
Passive Dosimeter Supply/Return Kit (LSE-PNTD)
Advanced Astroculture – Growth Changer (ADVASC-GC)
ADVASC Stowage 2 Descent (ADVASC-S2D)
ADVASC Stowage 3 Descent (ADVASC-S3D)
Biotechnology Cell Science Stowage – 5 (BCSS-5)
Biotechnology Cell Science Stowage – Resupply (BCSS-R)
Biomass Production System Muffler(BPS- MUFFLE)
Biotechnology Specimen Temperature Controller (BSTC)
Biotechnology Refrigerator (BTR)

UF-2 (continued)   TIM: Roland Schlierf

Gas Supply Module (GSM)
Physics of Colloids in Space Additional Hardware (PCS-AH)
Physics of Colloids in Space Avionics Section (PCS-AS)
Physics of Colloids in Space Hard Drives (PCS-HD)
Physics of Colloids in Space Mass Data Storage (PCS-MDS-R3)
EARTHKAM
Education Payload Ops
Descent Middecks:
Biomass Production System – GN2 Freezer (BPS-GN2)
Biomass Production System – Ames Stowage Kits (1,2,3&4) (BPS-ASK)
HRF Sample Return
Physics of Colloids in Space Test Section 1 (PCS-TS1)
Zeolite Crystal Growth – Sample Storage (ZCG-SS)
Biomass Production System (BPS)
Commercial Generic Bioprocessing Apparatus (CGBA)
Commercial Protein Crystal Growth - High Density (CPCG-H) – 2 units
Protein Crystal Growth – Enhanced Gaseous Nitrogen (PCG-EGN)

Lead Mechanical Engineer	**Backup Lead**	
Luke Setzer	Randy Gordon	

Payload/System	**Mechanical Engineer**	**Backup Mech. Engineer**
Express Rack #3 (ARIS)	Kenny Mathews	Luke Setzer
FCU	Jim Haggard	Randy Gordon
MSG	Mike Haddock	Randy Gordon
Cargo (Utilization + R&R)	Randy Gordon	Jennifer Wahlberg
Middeck Support	Mike Haddock	Kenny Matthews

Lead Middeck Electrical Engineer
Tracy Gill

Lead Fluids Engineer
Morgan Simpson

Lead Payload Flight Software Engineer
Sue Sitko

UF-2 (continued)

TIM: Roland Schlierf

Lead Electrical	**Backup Lead**
Rob Kuczaida	Dan Clark

Payload/System test 10/01-2/02	**Prime Test Engineer**	**Backup Test Engineer**
Express Rack #3aris (empty)	Tamara Willingham	Michael Gardner
FCU	Robert Wark	Deon Williams
DCPCG-C	Dave Stewart	Joanna Johnson
DCPCG-V	Dave Stewart	Joanna Johnson
PCG-STES-7	Sue Sitko	Myphi Tran
PCG-STES-8	Sue Sitko	Vanessa Stroh
ADVADC-GCO3	Morgan Simpson	Chien Nguyen
MSG	Kevin Zari	Morgan Simpson /
MSG Investigation Payloads	Lashanda Gantt	Myphi Tran

8A

TIM: Johnny Mathis

Current Manifest:
Ascent

Biomass Production System - Ames Stowage Kits (1, 2, 3 & 4) (BPS-ASK)
Zeolite Crystal Growth - Sample Storage (ZCG-SS)
Biomass Production System (BPS)
Biotechnology Refrigerator (BTR)
Commercial Generic Bioprocessing Apparatus (CGBA)
Commercial Protein Crystal Growth – High Density (CPCG-H)
Protein Crystal Growth – Enhanced Gaseous Nitrogen (PCG-EGN)
Advanced Thermoelectric Ref/ Freezer (ARCTIC)

Descent

HRF - Renal Stone Samples (HRF-Renal/S)
Microencapsulation Electrostatic Processing System (MEPS-S10)
Physics of Colloids in Space Mass Data Storage (PCS-MDS-R2)
Biotechnology Refrigerator (BTR)
PCG-2 Units

Lead Mechanical Engineer	**Backup Lead**
Jennifer Wahlberg	Kenny Mathews

Payload/System	**Mechanical Engineer**	**Backup Mech. Engineer**
FCU	Mike Haddock	Randy Gordon
Middeck Support	Randy Gordon	Luke Setzer, Mary Wahlberg

Lead Middeck Electrical Engineer
Tracy Gill

8A continued
Lead Fluids Engineer
Robert Wark

Lead Payload Flight Software Engineer
Sue Sitko

TIM: Johnny Mathis

8A Lead Electrical	**Backup Lead**	
Kevin Zari	Tracy Gill	

Payload/System test-11/01-2/02	**Prime Test Engineer**	**Backup Test Engineer**
FCU	Tamara Willingham	Joanna Johnson
CPCG-H2,H3	Robert Wark	Myphi Tran
CGBA3	Morgan Simpson	Michael Gardner
BPS	Dan Clark	Terri Holbert
ARCTIC Freezer	Susan Hutchison	Lashonda Gantt

ULF-1

TIM: Johnny Mathis

Current ULF-1 Manifest:

Ascent MPLM:

EXPRESS Transportation Rack (ETR)
Space Dynamically Responding Ultrasonic Matrix (Space-DRUMS) (flies in ETR)
Human Research Facility (HRF-2) with subrack payloads
EXPRESS Rack 6
Window Observational Research Facility (WORF)

Ascent middeck payloads:

Not requiring locker location:
Advanced Astroculture (ADVASC) Stowage 2
Advanced Astroculture (ADVASC) Stowage 3
Human Research Facility-Entry Monitoring Hardware
Human Research Facility-Inc. 6 Media Kit
HRF-I6 Renal Stone K/Cit Placebo Kit
Microencapsulation Electrostatic Processing System (MEPS-S10)
Microgravity Science Glovebox (MSG) Samples

Requiring Locker Location:
Advanced Astroculture-Growth Chamber (ADVASC-GC)
Commercial Protein Crystal Growth-High (CPCG-H)
Protein Crystal Growth-Single Thermal Enclosure System (PCG-STES)

Descent MPLM:
EXPRESS Transportation Rack
Plant Generic Bioprocessing Apparatus-Stowage One (PCBA-S1)
Solidification Using Baffles in Sealed Ampules (SUBSA)
Earth Knowledge Qcquired by Middle Schools Film (EARTHKAM-F)
Education Payload Operation – Increment 5
Human Research Facility – Experiment Return
Human Research Facility – GASMAP Cal Mod (4PU)

ULF-1 continued

Human Research Facility – Workstation 1 (4PU)

Microgravity Science Glovebox (MSG) Facility Stowage
PFM Processing Hardware

Descent middeck payloads:
Not requiring a locker:
Human Research Facility-Middeck Items
Toward Understanding Pore Formation and Mobility (PFMI-L)
Requiring Middeck Lock Location:
Commercial Generic Bioprocessing Apparatus (CGBA)
Commercial Protein Crystal Growth-High (CPCG-H)
Plant Generic Bioprocessing Apparatus (PGBA)

MELFI (NOTE: MELFI IS NOT MANIFESTED BUT PLANNED TO BE DELIVERED AND PROCESSED THROUGH PTCS AND THEN PUT IN STORAGE)

Lead Mechanical Engineer	**Backup Lead**	
xxxxx	xxxxxx	

Payload/System	**Mechanical Engineer**	**Backup Mech. Engineer**
FCU		
MELFI(UF-3)	Jennifer Wahlberg	Elaine Voll
WORF	Ken Mathews	Jennifer Wahlberg
Space DRUMS		
Express Rack	Randy Gordon	Ken Mathews
HRF2	Mike Haddock	

Lead Middeck Electrical Engineer

ULF_-1 continued

Lead Fluids Engineer   TIM: Johnny Mathis
Robert Wark

Lead Payload Flight Software Engineer
Sue Sitko

ULF-1 Lead Electrical	**Backup Lead**	
Tracy Gill	Rob Kuczajda / Kevin Zari	

Payload/System test-6/02-8/02	**Prime Test Engineer**	**Backup Test Engineer**
FCU (Express exp needed)	Dan Clark	Lashonda Gantt
MELFI (UF-3)	Susan Hutchison	Alex Bengoa
WORF	Susan Hutchison	Sue Sitko

HRF2	Rob Kuczajda	UB-G1
Space DRUMS	Tamara Willingham	Chien Nguyen
EXPRESS Rack 6 (non-aris)	Morgan Simpson	Dan Clark/ Lashonda Gantt
ADVASC-GC	Chien Nguyen	Morgan Simpson
CPCG-H	Vanessa Stroh	Robert Wark
PCG-STES	Myphi Tran	S. Smith

9A

Current Manifest   TIM: Roland Schlierf

Middeck Ascent:

Passive Dosimeter (PNTD) Supply/Return Kit
Coarsening in Solid Liquid Mixture –2-SPU (CSLM-2-SPU) (5)
Commercial Biomedical ITA Experiments (CBIX) (2)
Commercial Protein Crystal Growth –High Density (CPCG-H) (2)

Middeck Descent:
Passive Dosimeter (PNTD) Supply/Return Kit
Advanced Astroculture- Growth Chamber (ADVASC-GC)
ADVASC Stowage 2 Descent (ADVASC S2D)
ADVASC Stowage 3 Descent (ADVASC S3D)
Coarsening in Solid Liquid Mixture –2-SPU (CSLM-2-SPU) (3)
Dynamically Controlled Protein Crystal Growth (DCPCG-C)
Zeolite Crystal Growth – Sample Storage (ZCG-SS)
Commercial Generic Bioprocessing Apparatus (CPCG) Units 4&5
Dynamically Controlled Protein Crystal Growth (DCPCG-T)
Dynamically Controlled Protein Crystal Growth (DCPCG-V)
Protein Crystal Growth – Single Thermal Enclosure (PCG-STES) Units 7 & 8

Required Support:

Lead Payload Flight Software Engineer

Lead Mechanical Engineer/Mechanical Systems Engineer (includes stowage which is variable)
1 Prime Middeck Lead Mechanical -
1 Back-up Middeck Lead Mechanical
1 Prime Middeck Lead Electrical
1 Prime Middeck Experiment Engineer
2 Back-up Middeck Experiment Engineers

Lead Fluids Engineer

TIM: Roland Schlierf

Lead Electrical	Backup Lead	
Dan Clark (UB-G5)	Susan Hutchinson (UB-G1)	
Payload/System	**Prime Test Engineer**	**Backup Test Engineer**
FCU- EXPRESS	xxxx	xxxx
CBIX	xxxx	xxxx
CPCG-H	xxxx	xxxx
(*) – keep in UB-G1 utilization core engineers (5)		